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HL

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/217,168	12/21/98	ANDERSEN	T 1060

IM22/0912

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EXAMINER

LEADER, W

ART UNIT	PAPER NUMBER
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1741

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DATE MAILED:

09/12/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/27,168

Applicant(s)

Andersen et al

Examiner

William Leader

Group Art Unit

1741

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 6/26/2000 with a COM dated 6/20/2000.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-16 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☒ Claim(s) 11-13 is/are allowed.
- ☒ Claim(s) 1-10, 14, 15 and 16 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) _____.
- ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____.

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of References Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

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Receipt of the amendment filed on June 26, 2000, with a certificate of mailing dated June 20, 2000, is acknowledged.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-4, 6-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takehara et al (5,746,902) for the reasons given in the previous office action and in view of the following comments.

Claims 5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takehara et al as applied to claims 1-4, 6-8 and 10 above, and further in view of Riggs, Jr. (4,477,320) for the reasons given in the previous office action and in view of the following comments.

Claims 14, 15 and 16 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Takehara et al for the reasons given in the previous office action and in view of the following comments.

Applicant has amended independent claim 1 and 7 to recite that the amount of sulfuric acid in the electrolyte solution is greater than or equal to 1.2 times the amount of manganese ions. This is a new range, not previously disclosed or

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claimed. Applicant's reasoning that this range does not constitute new matter is given at the bottom of page 5 to the top of page 6 of the Remarks. This reasoning is persuasive that support for this range is present in the specification as filed.

At page 6 of the Remarks, applicant argues that claims 1-4, 6-8 and 10 as amended are patentably distinguished from Takehara et al for the reason that Takehara et al does not disclose or suggest that the sulfuric acid in the electrolytic solution should be greater than or equal to 1.2 times the concentration of the manganese ion. Applicant points out that Takehara et al teach the use of an electrolyte solution which has a sulfuric acid concentration ranging from 29.4 to 44.1 g/l and a manganese sulfate concentration ranging from 27.5 to 55 g/l. Applicant urges that the ratio of sulfuric acid to manganese ion in the electrolyte solution of Takehara et al is from 1.07 at the low ends of these ranges to 0.8 at the high ends of the ranges.

Applicant's arguments have been carefully considered but are not deemed to be persuasive. Takehara et al do not teach any specific relationship between the concentration between the amounts of sulfuric acid and manganese ions in solution. There is no requirement that if the amount of sulfuric acid used is at the lower end of the disclosed range, the amount of manganese ions must also be chosen from the lower end of the disclosed range. Rather, Takehara et al would suggest to one of ordinary skill in the art that any amount of sulfuric acid from the disclosed range

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may be used with any amount of manganese ions from the disclosed range. Consequently, the Takehara et al patent does suggest the use of amounts of sulfuric acid and manganese ions which fall within the ratio of greater than or equal to 1.2 to 1 now recited by applicant. For example, if 30 g/l of manganese ions were used with 40 g/l of sulfuric acid, both concentrations well within the ranges disclosed by Takehara et al, the ratio of the amount of sulfuric acid to manganese ions would be 1.33 to 1.

It is additionally noted that Takehara et al recognize that in the art of making electrolytic manganese dioxide, it is known to choose the sulfuric acid and manganese ion concentration from even broader ranges. As pointed out in the previous office action, at column 2, lines 3-10, Takehara et al disclose that it is known to choose the amount of sulfuric acid from the range of 0.35 to 0.6 mol/liter, and to use manganese sulfate in an amount of 0.5 to 1.2 mol/liter. These ranges correspond to a sulfuric acid concentration of 34.3 to 58.8 g/l and a manganese ion concentration of 27.5 to 66 g/l. Choice of values within these ranges result in a ratio of sulfuric acid to manganese ions that falls within the range recited in the instant claims.

As indicated in the previous office action, claims 11-13 are allowed.

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THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Leader, whose telephone number is (703) 308-2530. The examiner can normally be reached Mondays-Fridays from 7:30 AM to 3:30 PM eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathryn Gorgos can be reached at (703) 308-3328. The fax phone number for *official* after final faxes is (703) 305-3599. The fax phone number for all other *official* faxes is (703) 305-7718. Unofficial communications to the Examiner should be faxed to (703) 305-7719.

Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is (703) 308-0661.

W

William Leader:wtl
September 7, 2000

Kathryn Gorgos
Kathryn Gorgos
Supervisory Patent Examiner
Technology Center 1700